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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,792	09/22/2003	Horst Schramm	1784-P3004.001	9562

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EXAMINER

LAZO, THOMAS E

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

THL

Office Action Summary	Application No. 10/667,792	Applicant(s) SCHRAMM ET AL.	
	Examiner Thomas E. Lazo	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 8 and 10-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/12/04 11/10/03</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claim 9 objected to because of the following informalities:

In claim 9, line 3, "notional" should be --rotational--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Price (3,110,031). Price discloses a vacuum servo brake for a booster brake system having an input member, by means of which a valve arrangement may be acted upon at an input force in order to connect a working chamber selectively to the outside or to a vacuum chamber which is separated from the working chamber by a working piston which may be brought into operative connection with a main cylinder via an output member in order to generate a braking pressure and on which there is provided an elastomeric reaction member 108 through which a reaction force dependent on the braking pressure may be applied to the input member, in which the output member Db has a stop 78 which, in the event of a predetermined input force comes into abutment against the working piston Cb to alter an amplification ratio of the vacuum servo brake, wherein, arranged

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adjacent to the reaction member 108 is at least one volume take-up means (corrugation of bellows) into which part of the reaction member 108 may be displaced in the event of the vacuum servo brake being actuated, and wherein the stop 78 is of resilient construction in a region in which the stop 78 abuts so that, when the stop 78 abuts against the working piston Cb, a relative movement between the output member Db and the working piston Cb is still possible, the volume take-up means is on the output member Db, the output member Db has a shoulder which abuts against the reaction member 108 by means of an end face and whereof the external peripheral face delimits an annular free space as the volume take-up means, a ramp is provided between the end face and the external peripheral face of the shoulder, the volume take up means is provided on the reaction member 108, the reaction member is a disc which is cylindrical and has an external periphery on which a peripheral recess (corrugation of bellows) is provided to form the volume take-up means, and the peripheral recess has a semicircular cross-section, and the reaction member is a disc which is constructed to be symmetrical about a rotational plane parallel to its end face.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgdorf et al. (DE 10028691 A1) in view of Tsubouchi (4,491,056). Burgdorf et al. discloses a

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vacuum servo brake for a booster brake system having an output member in order to generate a braking pressure and on which there is provided an elastomeric reaction member 6 through which a reaction force dependent on the braking pressure may be applied to the input member 7, wherein, arranged adjacent to the reaction member is at least one volume take-up means (curvature of reaction member) into which part of the reaction member may be displaced in the event of the vacuum servo brake being actuated, and, the volume take-up means is on the output member and the reaction member, and the reaction member is a disc which is constructed to be symmetrical about a rotational plane parallel to its end face. Burgdorf et al. does not disclose the output member having a stop which, in the event of a predetermined input force comes into abutment against the working piston to alter an amplification ratio of the vacuum servo brake, wherein at least one of the stop and the working piston is of resilient construction in a region in which the stop abuts so that, when the stop abuts against the working piston, a relative movement between the output member and the working piston is still possible.

Tsubouchi teaches for a vacuum servo brake with a working piston, output member, and a reaction member, and that there is a stop 43 which, in the event of a predetermined input force comes into abutment against the working piston to alter an amplification ratio of the vacuum servo brake, wherein the working piston is of resilient construction in a region in which the stop 43 abuts so that, when the stop 43 abuts against the working piston, a relative movement between the output member and the working piston is still possible for the purposes of maintaining axial alignment of the output member. See Tsubouchi col. 2, lines 42-68.

Since Burgdorf et al. and Tsubouchi are both vacuum servo brakes with output members, it would have been obvious at the time the invention was made to a person having ordinary skill

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in the art to modify the output member of Burgdorf et al., based on the teachings of Tsubouchi, to have a stop which, in the event of a predetermined input force comes into abutment against the working piston to alter an amplification ratio of the vacuum servo brake, wherein the working piston is of resilient construction in a region in which the stop abuts so that, when the stop abuts against the working piston, a relative movement between the output member and the working piston is still possible for the purposes of maintaining axial alignment of the output member.

Claims 16, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgdorf et al. and Tsubouchi, as applied to claim 1 above, in further view of Price. The modified vacuum servo brake of Burgdorf et al. discloses all of the claimed subject matter except for the reaction member being lubricated with lubrication paste, coating, or a non stick agent mixed with the elastomer of the reaction member.

Price teaches for a reaction member, and that it can be lubricated with a lubrication paste, coating, or a non-stick agent mixed with the elastomer of the reaction member for the purposes of reducing hysteresis effects to an acceptable level. See Price col. 5, lines 6-46.

Since Burgdorf et al., Tsubouchi and Price are all vacuum servo brakes with reaction members, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the vacuum servo brake of Burgdorf et al., based on the teachings of Price, to have the reaction member lubricated with a lubrication paste, coating, or a non stick agent mixed with the elastomer of the reaction member for the purposes of reducing hysteresis effects to an acceptable level.

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Allowable Subject Matter

Claims 8 and 10-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of four patents.

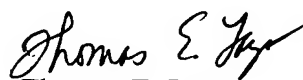
Stegmaier et al., Hoerner, Tobisawa, and Uyama are cited to show vacuum servo brakes with reaction members.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.



Thomas E. Lazo
Primary Examiner
Art Unit 3745

TEL
July 22, 2005